

## **REMARKS**

Claims 1-4, 6-16 and 22-25 are pending in this application. Claims 1, 2 and 6-8 have been amended. Claims 5 and 17-21 have been cancelled. New claims 22-25 have been added herein. All claims find full support in the original specification, claims, and drawings. No new matter has been added.

In the Office Action mailed on November 7, 2008, claims 1-17 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Seidel et al. (U.S. 6,658,005) in view of Fong et al. (U.S. 6,760,860). Applicants respectfully traverse this rejection.

### **Objection to the Claims**

The Examiner has objected to claims 1 and 5 due to for various informalities. While Applicants disagree, Applicants have amended claim 1 and cancelled claim 5. Accordingly, Applicants respectfully request that the objection to claims 1 and 5 be reconsidered and withdrawn.

### **Claim Rejections – 35 U.S.C. § 112, 2<sup>nd</sup> paragraph**

Claim 1 stands rejected under 35 U.S.C. §112, second paragraph, as allegedly being incomplete for omitting essential elements, such omission amounting to a gap between the elements. Applicants respectfully submit that claim 1 recites all essential elements.

It is respectfully reminded that when analyzing the enabled scope of a claim, the teachings of the specification must not be ignored as the claims are to be given their broadest reasonable interpretation in light of the specification. “That claims are interpreted in light of the specification does not mean that everything in the specification must be read into the claims.” *Raytheon Co. v. Roper Corp.*, 724 F.2d

951, 957, 220 USPQ 592, 597 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 835 (1984). (See MPEP §2164.08.) Accordingly, Applicants are not required to claim every detail that describes the relationship between the claimed elements.

Further, the test for definiteness under 35 U.S.C. 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). (See MPEP §2173.02.) Here, Applicants respectfully submit that the meaning and scope of “ACK/NAK delay” and “1 slot” are clear when read in light of the specification. Accordingly, Applicants respectfully submit that there is no omission of essential elements amounting to gaps in the elements as alleged in the Office Action. Therefore, Applicants respectfully request that the rejection under 35 U.S.C. §112, second paragraph, be withdrawn.

Claims 1, 6, 8 and 17 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended claims 1, 6 and 8 to clarify the antecedent basis. Claim 17 has been cancelled. Accordingly, Applicants respectfully request that the Examiner withdraw the 35 U.S.C. § 112, second paragraph rejection.

#### **Claim Rejections – 35 U.S.C. § 103(a)**

The Examiner rejects claims 1-17 under 35 U.S.C. 103(a) as allegedly being unpatentable over Seidel et al. (U.S. Patent No. 6,658,005) in view of Fong et al. (U.S. Patent No. 6,760,860). Applicants respectfully traverse this rejection.

Exemplary embodiments of Applicants’ claimed invention provide methods and devices comprising unique combinations of method steps and features, respectively, including, *inter alia*, an apparatus for use in a mobile communication system that simultaneously transmits a control message over a control channel and

data over a data channel, wherein the apparatus supports hybrid automatic repeat request (HARQ), the apparatus comprising: a physical layer for receiving the control message and the data from the control channel and the data channel respectively and for decoding the received control message and data; a physical layer's HARQ controller for processing a result of the decoding of at least one of the received control message and data and for controlling the physical layer according to a result of the processing, the physical layer's HARQ controller comprising: two HARQ state machines for receiving state information from the physical layer and determining a state transition to next state, wherein the two HARQ state machines are selectively enabled based on a number of acknowledgement/negative-acknowledgement (ACK/NAK) processing delay time slots (see Applicants' independent claim 1).

Neither Seidel et al. nor Fong et al. alone or in combination disclose, teach or suggest such unique combinations of features or method steps.

Regarding claim 1, the Examiner admits that Seidel et al. and Fong et al. fail to disclose at least two HARQ state machines for receiving state information from the physical layer and determining a state transition to next state. However, the Examiner nevertheless alleges that this modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, without presenting any evidence to support the allegation.

The Examiner alleges that "it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the actions of Seidel above using state machines such as the one shown in Fig. 5." (See Non-final Office Action mailed on November 7, 2008, pg. 6, second-third paragraph.) While it is unclear which Fig. 5 is being referenced in the Office Action, neither Fig. 5 of Seidel et al. nor Fong et al. show, teach, or suggest a HARQ state machine as alleged by the Examiner. To suggest that one would have been motivated to modify the combination of Seidel et al. and Fong et al. to include at least two HARQ state machines just because "Seidel could have been modeled using state diagrams" (See Non-final Office Action mailed on November 7, 2008, pg. 6, second-third paragraph)

when both Seidel et al. and Fong et al. are completely silent on the issue is an improper and unsupported conclusion.

The courts have said “[r]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1396 quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). (See MPEP §2143.01(III).) In the present case, while the Office has attempted to provide a rationale to support the legal conclusion that it would have been obvious to modify the combination of Seidel et al. and Fong et al. with the at least two HARQ state machines as claimed, the Examiner has failed to present any evidence to support the rationale or the conclusion (i.e., neither Seidel et al. nor Fong et al. teach or suggest such a feature). Accordingly, Applicants respectfully submit that the rejection to at least independent claim 1 is fundamentally flawed and has failed to present a *prima facie* case of obviousness.

Moreover, claim 1, as amended, recites in part two HARQ state machines which are selectively enabled based on a number of ACK/NAK processing delay time slots. Seidel et al. and Fong et al., whether taken alone or in combination, fail to teach or suggest such features. Accordingly, Applicants respectfully submit that independent claim 1, as amended, is distinguishable over Seidel et al. and Fong et al., whether taken alone or in combination, and therefore respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

Claims 2-4 and 6-16 depend, directly or indirectly, from claim 1, thereby incorporating all of the features of claim 1. Accordingly, Applicants respectfully submit that claims 2-4 and 6-16 are allowable for at least the reasons given above by virtue of their dependency to independent claim 1. Hence, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

New claims 22-25 have been added. The claimed subject matter in these claims may be found throughout the specification and drawings as originally filed, such as, for example, in Fig. 6, and pages 29 and 30 in the specification of the instant application. Accordingly, no new matter has been introduced. Furthermore, new claims 22-25 depend, directly or indirectly, from claim 1, thereby incorporating all of

the features of claim 1. Hence, Applicants respectfully submit that claims 22-25 are also allowable for at least the reasons given above by virtue of their dependency to independent claim 1.

In addition, Seidel et al. and Fong et al., whether taken alone or in combination, also fail to teach or suggest an apparatus for use in a mobile communication system where only one of the two HARQ state machines is enabled when the ACK/NAK processing delay is equal to 1 time slot (claim 22), where two HARQ state machines are enabled when the ACK/NAK processing delay is equal to 2 time slots (claim 23), and where the two enabled state machines consist of an odd state machine and an even state machine (claim 25).

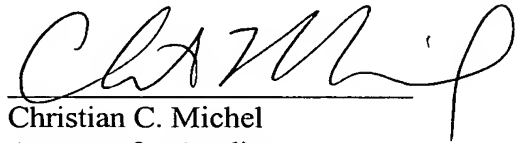
Accordingly, Applicants' independent claim 1, as well as the dependent claims 2-4, 6-16 and 22-25 (which incorporate, by reference, all of the features of their respective base claims) are distinguished from both Seidel et al. and Fong et al. at least for these reasons. Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn and the pending claims be passed to issue

### Conclusion

Reconsideration of the above-identified application and allowance of claims 1-4, 6-16 and 22-25 are respectfully requested.

In view of the above, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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